

## State of Utah DEPARTMENT OF HEALTH DIVISION OF ENVIRONMENTAL HEALTH

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April 9, 1991

Ken A. Kluksdahl Tenneco Minerals P.O. Box 2650 955 North 1300 West #4 St. George, Utah 84770

Re: Remedial Plan to Repair Process Ponds

Dear Mr. Kluksdahl:

We have reviewed your letter dated March 19, 1991, regarding repair of the process ponds which were damaged by flying rock from the blast that occurred on March 6, 1991.

You stated that the damage to the pregnant solution pond appears to have been corrected and that the barren solution pond appears to be repairable. You also state that all holes encountered have been repaired and vacuum tested and you plan to verify that the repaired ponds are not leaking by continuing to pump the leak detection sump.

Our comments concerning the proposed repairs on the process ponds are as follows:

- 1. Lyle Stott of my staff noted that the FML in the makeup water pond continued to float after the pump was not able to recover fluids from the leak detection sump. This may indicate that the leak detection in the process ponds may be permanently damaged, resulting from saturation of the clay beneath the filter fabric, thus reducing efficient collection of fluids. Even if the leak detection system is intact, your statement indicating that you can verify that the ponds are not leaking by monitoring the leak detection sump may not be true because the leak detection system as designed and constructed has low sensitivity to leakage and even lower sensitivity after saturation of the clay beneath the filter fabric.
- 2. The visible holes were repaired and vacuum tested; however, it is possible that numerous smaller holes not visible may have not been repaired or tested and therefore the FML's may be permanently damaged.

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> We conclude that the FML's in all three process ponds are damaged beyond repair and therefore must be replaced. At the same time the ponds should be upgraded to meet current design standards. Please submit plans for approval on the upgrade of these ponds.

If you have any questions or wish to discuss this issue further please call Lyle Stott or Kiran Bhayani at 538-6146.

Sincerely,

Don A. Ostler, P.E., Director

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Bureau of Water Pollution Control

DAO:lws:rvg

cc: Mr. Wayne Thomas, Southeast Health Department

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